

Notice of Allowability

Application No.

09/772,273

Examiner

Karen B Addison

Applicant(s)

MOLER ET AL

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/17/03
2. ☒ The allowed claim(s) is/are 1-7, 10-15, 18-20, 22 and 24
3. ☒ The drawings filed on 29 January 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received. _____.

5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
(a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has **THREE MONTHS FROM THE "MAILING DATE"** of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in **ABANDONMENT** of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No. _____.
(b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
(c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1 ☐ Notice of References Cited (PTO-892)
3 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
5 ☐ Information Disclosure Statements (PTO-1449), Paper No. _____.
7 ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
2 ☐ Notice of Informal Patent Application (PTO-152)
4 ☒ Interview Summary (PTO-413), Paper No. 3.
6 ☐ Examiner's Amendment/Comment
8 ☒ Examiner's Statement of Reasons for Allowance
9 ☐ Other

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-7, 10-15, 18-20, 22 and 24 are allowed.

The following is an examiner's statement of reasons for allowance: Prior art shows, a single support structure having a first, and second resilient arm, that is mechanically actuated, wherein the actuation produces spatial displacement. Prior art also discloses a piezoelectric actuator located within the enclosed periphery of the support member and operably positionable between the first and second inwardly directed opposing supports for moving the support between a rest position and an actuated position.

However, Prior art fails to show a I-shape support defining an enclosed periphery. Prior art also fails to disclose an I shape support structure including at least one web defining at least one flex axis with respect to the remaining support structure, the support structure defining first and second opposing support surfaces facing one another on one side of the at least one web and defining at least one rigid arm movable about the flex axis on an opposite side of at least one web. Prior art also fails to show, a support structure being a single piece of material having shape memory with a high modulus of elasticity of high strength, the support structure defining a first and second opposing actuator support surfacing one another and spaced apart from one another, the piezoelectric actuator operably positionable with opposite longitudinal ends engageable with the first and second opposing actuator support surfaces for driving the support

structure between a rest position in response to excitation of the piezoelectric actuator, the support structure including first and second webs connected in one integral piece to at least one arm movable relative to the remaining support structure about a flex axis, wherein one piece of the web include a portion extending with an angled non-perpendicular component to the at least one arm; and the piezoelectric actuator positionable between the first and second webs for driving the one are relative to the remaining support structure about the flex axis when the piezoelectric actuator is driven.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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Thomas M. Berglund
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